



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 81645

\*81645\*

Page 2

Friday, March 16, 2012 12:59:32 PM

Item ID: D3304-041 Accept \*N900040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: Tube Assembly  
 Start Date: 3/29/2012 Start Qty: 2.00 \*2\* Cust Item ID:  
 Required Date: 3/29/2012 Req'd Qty: 2.00 \*2\* Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	QC8- Inspect parts - second check	0.00							
*130*									
QC	Memo	0.00							
Quality Control									
140		0.00							
*140*	Small Fab								
Small Fab	Memo	0.00							
Small Fab	Deburr Drill as per Dwg D3304 using drill Jig D3304-T1Deburr								
150	QC5- Inspect part completeness to step on W/O	0.00							
*150*									
QC	Memo	0.00							
Quality Control									

SA 12/3/28

2

FF  
12-05-02

Solista

2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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## Page 3

## Quality Control

**Dart Aerospace Ltd**

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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**\*81645\***

Page 4

Friday, March 16, 2012 12:59:32 PM

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 Revision ID: Stop **\*NS2\***  
 Item Name: Tube Assembly  
 Start Date: 3/29/2012 Start Qty: 2.00 **\*2\*** Cust Item ID:  
 Required Date: 3/29/2012 Req'd Qty: 2.00 **\*2\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190	Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3	0.00							
<b>*190*</b>									
Powdercoat	Memo	0.00							
Powder Coating	START TIME: 11:15								
	FINISH TIME: 11:45								
	8200F								
200	QC3- Inspect Part Finish	0.00							
<b>*200*</b>									
QC	Memo	0.00							
Quality Control									
210		0.00							
<b>*210*</b>									
Small Fab	Small Fab	0.00							
Small Fab	Assemble lanyard and pip pin as per Dwg D3304								

2X ~~✓~~ 12/07/19  
 2 ~~✓~~ 12/27/19  
 2 ~~✓~~ 12-07-19

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**\*81645\***

Page 5

Friday, March 16, 2012 12:59:32 PM

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 Item Name: Tube Assembly  
 Start Date: 3/29/2012 Start Qty: 2.00 **\*2\*** Cust Item ID:  
 Required Date: 3/29/2012 Req'd Qty: 2.00 **\*2\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
220 <b>*220*</b> QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00 0.00		DAS 16 9-83 17/01/12		(x2)			
230 <b>*230*</b> Packaging Packaging	Identify as per dwg & Stock Location  Memo	0.00 0.00				2x			12-7-24
240 <b>*240*</b> QC Quality Control	QC21- Final Inspection - Work Order Release  Memo	0.00 0.00							12/7/24 ME 12-07-24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Page 1

Friday, March 16, 2012 12:59:36 PM

Work Order ID: 81645

\*81645\*

Parent Item: D3304-041

\*D3304-041\*

Parent Item Name: Tube Assembly

Start Date: 3/29/2012

Required Date: 3/29/2012

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP: C04.11.17Step 13 revisedKJ/JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

CBL-1240		Purchased	No			100	f	562.7006	1.0417	2.0834			
----------	--	-----------	----	--	--	-----	---	----------	--------	--------	--	--	--

\*CBL-1240\*

Cable

\*\*

(2) FF 12-07-19

Location

Loc Qty

Loc Code

GA

562.700589

113565

3.911789

119021

477.922

119690

80.8668

2.0834

M304TR0.875W.065

Purchased

No

160

f

10.0000

1.3437

2.828842

\*M304TR0 875W 065\*

304 round tube .875 x .065w

\*\*

Location

Loc Qty

Loc Code

MAT017

10

110680

10

3.0

12-3-28

BLBS-0016

Purchased

No

210

Each

11.0000

1

2

\*RI BS-0016\*

PIP PIN

\*\*

(2) FF 12-07-19

Location

Loc Qty

Loc Code

ST283

11

113489

1

113565

10

2

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries

# Picklist Print

Page 2

Friday, March 16, 2012 12:59:36 PM

Work Order ID: 81645

**\*81645\***

Parent Item: D3304-041

**\*D3304-041\***

Parent Item Name: Tube Assembly

Start Date: 3/29/2012

Required Date: 3/29/2012

Start Qty: 2.00

Required Qty: 2.00

CBL-460

Purchased

No

210

Each

425.0000

2

4

**\*CBI -460\***

Loop Sleeve

\*\*

(2) FF 12-07-19

Location

Loc Qty

Loc Code

GA

121574

425

4

117947

4

118140

33

119021

188

120809

200

D3304-5

Manufactured

No

210

Each

21.0000

1

2

**\*D3304-5\***

Bracket

\*\*

EL 12-7-18

Location

Loc Qty

Loc Code

WA022

21

54570

21

2

Friday, March 16, 2012 12:59:37 PM

Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**Dart Aerospace Ltd**

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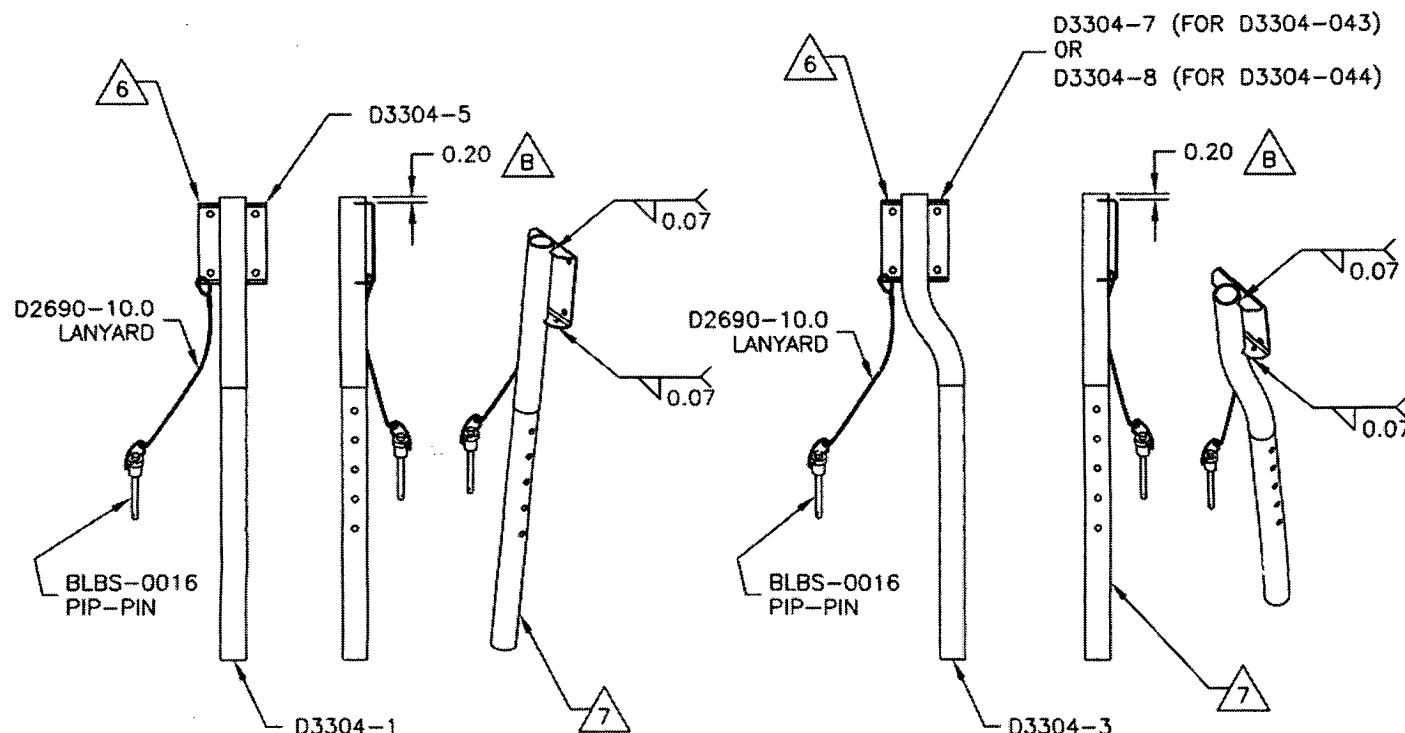
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries





DESIGN	RF	DRAWN BY	RF	DART AEROSPACE LTD
CHECKED		APPROVED		HAWKESBURY, ONTARIO, CANADA
DATE	05.07.15	TITLE	D3304	REV. B
			TUBE ASSEMBLY	SHEET 1 OF 4
				SCALE 1:6
A	04.08.18	NEW ISSUE		
B	05.07.15	UPDATE DIMENSIONS; ADD D3304-7/-8		



SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 81645 RD12-03-16

D3304-041/-043/-044 NOTES:

- 1) FINISH: POWDER COAT GREY SANDTEX (REF. 4.3.5.6) PER DART QSI 005 4.3
- 2) WELD PER DART QSI 004
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 6) IDENTIFY AS INDICATED USING FINE POINT PERMANENT INK MARKER "TCCA-PDA, DART AEROSPACE LTD, P/N D3304-XXX B/N BXXXXX, FOR PRODUCT ELIGIBILITY SEE PDA04-11"
- 7) IF BEING ASSEMBLED WITH D3303-041, ADD THE FOLLOWING USING A FINE POINT PERMANENT INK MARKER: "TCCA-PDA, DART AEROSPACE LTD, P/N D412-724-XXX B/N BXXXXX, FOR PRODUCT ELIGIBILITY SEE PDA04-11"

RELEASED  
25-08-11

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

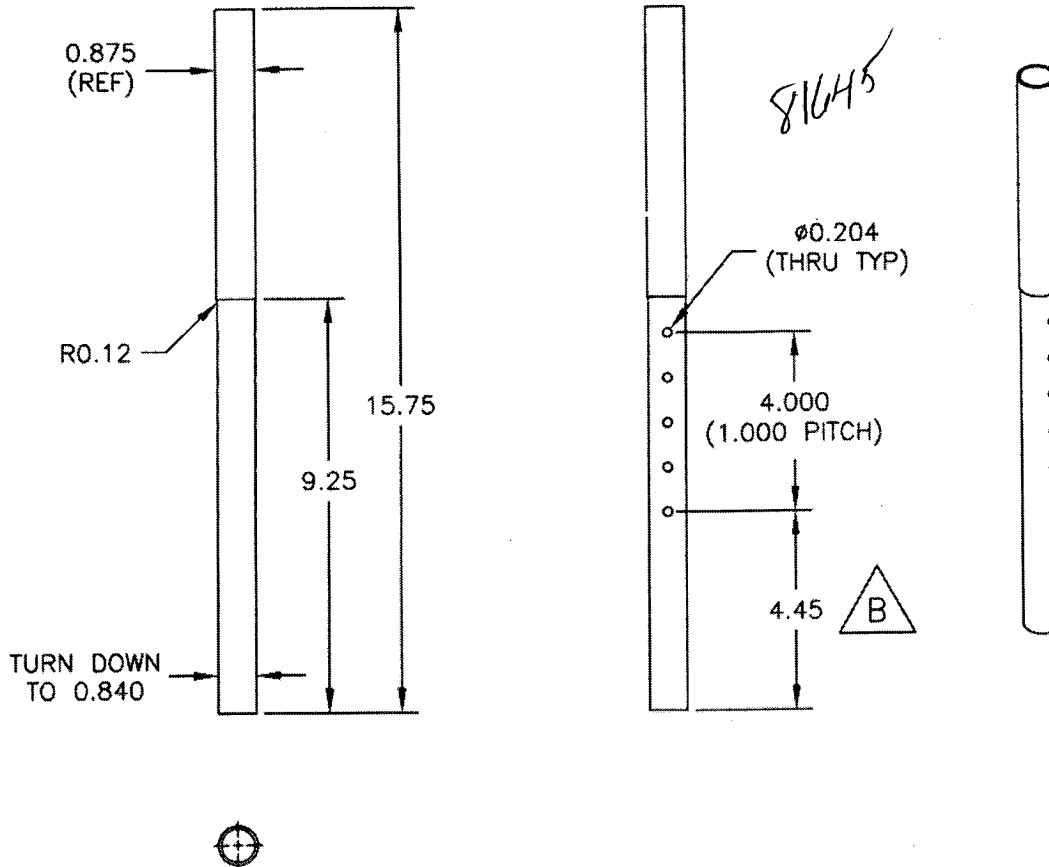
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**DART**

DESIGN RF	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3304	REV. B SHEET 2 OF 4
DATE 05.07.15	TITLE TUBE ASSEMBLY		SCALE 1:4

**RELEASED**  
05-08-11 *[Signature]***D3304-1 TUBE****D3304-1 NOTES:**

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL TUBE  $\phi 0.875 \times 0.065$  WALL  
(REF. DART SPEC M304TR0.875W.065) ENSURE SEAMLESS TUBE IS USED
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015

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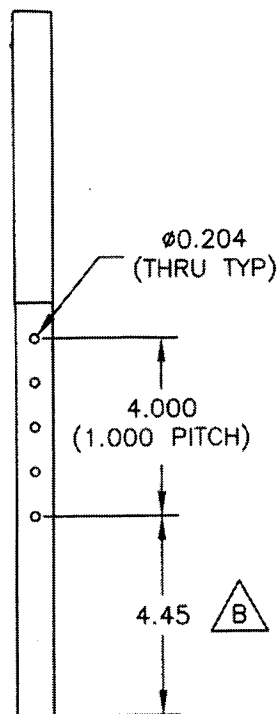
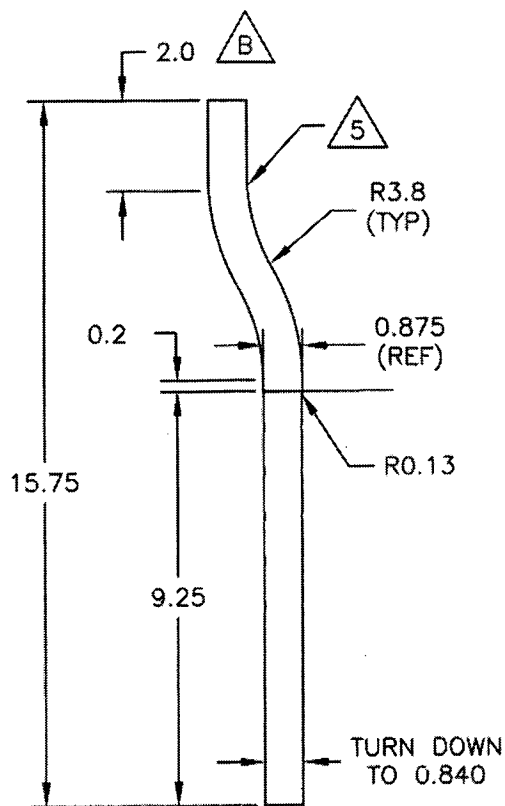
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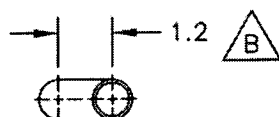
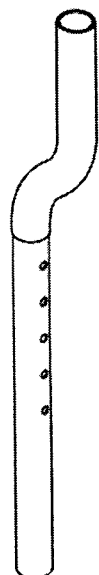
**NOTE:** Date & initial all entries



DESIGN RF	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3304	REV. B SHEET 3 OF 4
DATE 05.07.15		TITLE TUBE ASSEMBLY	SCALE 1:4



RELEASED  
05-08-11 *[Signature]*



### D3304-3 TUBE

#### D3304-3 NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL TUBE Ø0.875 x 0.065 WALL  
(REF. DART SPEC M304TR0.875W.065) ENSURE SEAMLESS TUBE IS USED
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) BEND LINES 9.625, 13.375 DIMENSIONS

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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

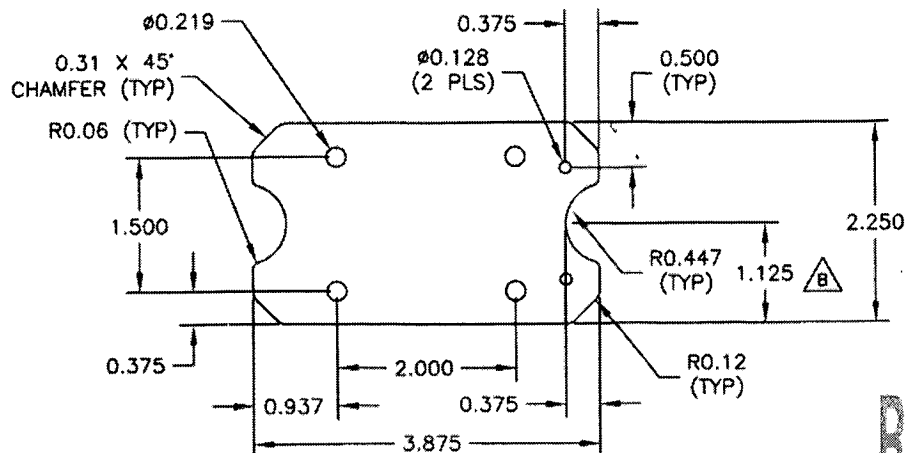
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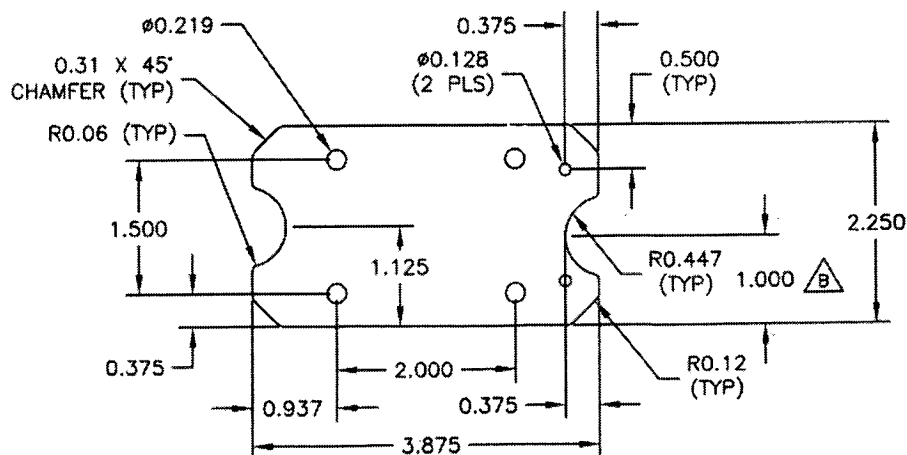
**NOTE:** Date & initial all entries



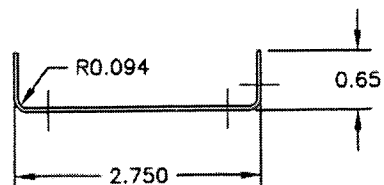
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CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3304	REV. B SHEET 4 OF 4
DATE 05.07.15	TITLE TUBE ASSEMBLY		SCALE 1:2



**D3304-5 FLAT PATTERN**



**D3304-7/-8 FLAT PATTERN**



**D3304-5/-7 BRACKET  
D3304-8 OPPOSITE**

**NOTES:**

- 1) MATERIAL: AISI 304/316 SS 0.040 THICK SHEET (REF. DART SPEC M304S20GA)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015

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